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Contribution to the Pselaphid Beetle Fauna of Jamaica

Orlando Park

Northwestern University



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INTRODUCTION

This is the first record of Pselaphidae from the large Antillean island of Jamaica known to the author. It has been made possible by the field work of Dr. Peter F. Bellinger. Included in this report are descriptions of one new genus and seven new species. Only two tribes are represented, the Faronini, with one genus and species, and the Euplectini, with five genera and six species.

FARONINI

Caccoplectus bellingeri new species

Type. Head 0.47 mm. long x 0.53 mm. wide ; pronotum 0.53 x 0.54 ; elytra 0.80 x 0.80 ; abdomen 0.87 x 0.74 ; total length 2.7 mm.

Antennae, head, pronotum and legs (except tarsi) deep chestnut brown ; elytra, abdomen and tarsi orange. Integuments moderately shining, head and pronotum coarsely and densely punctate ; elytra finely punctulate ; abdomen with scattered, broad, very shallow punctures. The pubescence complex ; whitish on legs, head, pronotum and antennae, the

antennae specially heavily setose ; golden brown on elytra and abdomen, the abdominal setae coarser and longer ; cephalic foveae, pronotal foveae, distal elytral margin, articular membranes of abdomen, and the sternal foveae provided with dense spongy pubescence ; ventral surfaces of procoxae, protrochanters, profemora, mesocoxae, mesotrochanters, and mesofemora, and all surfaces of the protibiae and mesotibiae set with squamoid setae.

Head with coarsely faceted eyes set in the posterior three-fourths of head length, not as long as the prominent tempora, the eyes deeply reniform, more than twice as deep as long. Three cephalic foveae : an elongate frontal fovea in anterior half of the prominent antennal tubercle ; a pair of vertexal foveae between the eyes, each at origin of a divergent sulcus that extends obliquely anteroventrad to antennal acetabulum. Face excavated beneath antennal tubercle, labrum transverse, its anterior face arcuate and deeply truncate from a direct apical view ; mandibles well-formed, left crossed dorsal to right. Maxillary palpi very small, three segments visible, first minute, second and third sub-equal in length, second slightly arcuate and slightly swollen distally, third about as wide as apex of second, and slightly elongate oval. Antennae conspicuous, about half as long as body (1.8 mm.), heavily pubescent as noted, eleven-segmented, articulated on a prominent antennal tubercle, their insertions not close to one another ; club not prominent ; ventral faces of segments III to IX flattened to concave ; proportions as illustrated (Fig. 1). Mentum small, with concave distal margin ; ventral surface of head slightly transversely concave.

Pronotum subhexagonal, slightly constricted apically ; disc not impressed ; medianly a deep longitudinal sulcus, spongy pubescent, from basal bead to disc, and on either side a broad, shallow, subglabrous longitudinal impression ; a deep, irregular, spongy pubescent lateral ante-basal fovea each side ; a U-shaped subglabrous sulcus, an arm of which arises near apical margin and extends posteriorly, enveloping the lateral

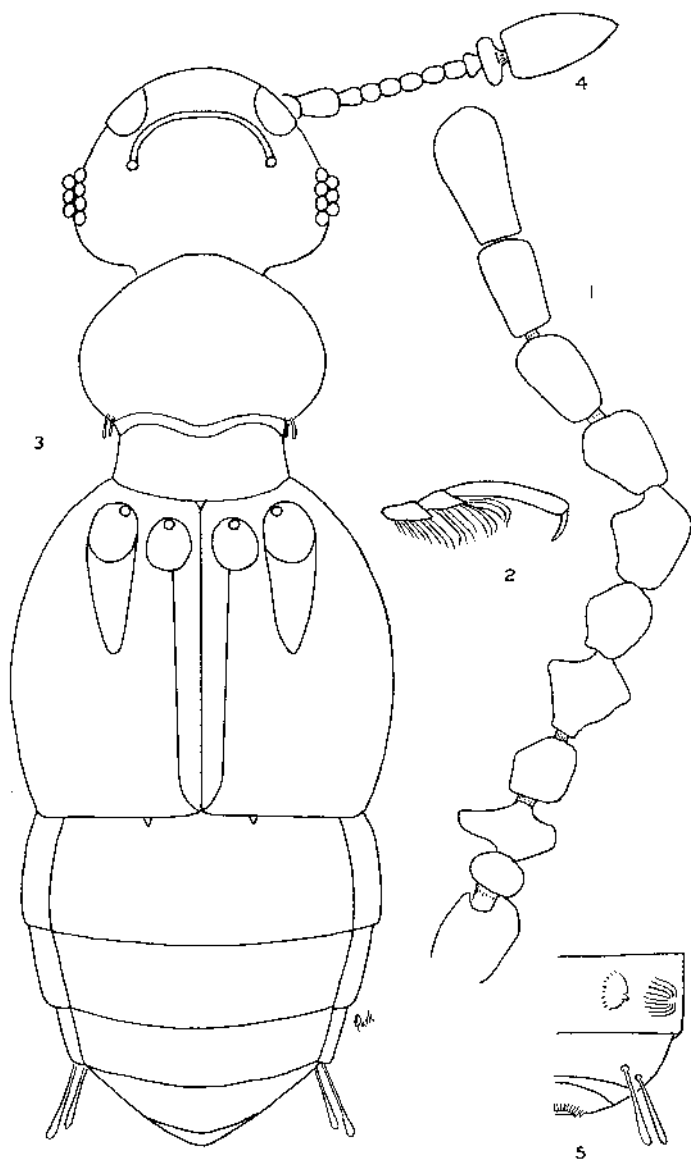
Fig. 1. *Caccoplectus bellingeri* new species. Right antenna of type, dorsal face, X 70. Pubescence not shown.

Fig. 2. *Caccoplectus bellingeri* new species. Left metatarsus of type, lateral face, X 70.

Fig. 3. *Latomelba quadrisicca* new genus and species. Dorsal aspect of type male, X 70. General body pubescence not shown.

Fig. 4. *Latomelba quadrisicca* new genus and species. Right antenna of type male, X 70.

Fig. 5. *Latomelba quadrisicca* new genus and species. Left lateroventral aspect of venter, X 70. Type male.



fovea, and these two lateral arms united by an arcuate transverse impression that is in contact with the anterior ends of the three basal longitudinal impressions noted.

Elytra with sloping humeri ; each elytron with four nude antebasal foveae, arranged in pairs, the two most lateral foveae separated from each other by a short high costa, and below the humeral angle this costa disappears so that there is a broad, shallow discal impression almost to basal half of elytral length ; the two most mesial foveae at base of a long sutural impression ; sutural stria prominent and entire ; mesial wall of discal impression and lateral wall of sutural impression specially raised so that there is developed a flattened costoid area that extends over disc from base to posterior five-sixths of elytral length ; similarly, there is developed a sutural costoid area formed by the raised lateral wall of sutural stria and the mesial elytral margin ; elytral flank simple, without subhumeral fovea.

Abdomen with five visible tergites in a median length ratio of 3/3.5/3/2.5/1.8 with the first three bearing prominent, wide lateral margins and the fourth with smaller, rapidly narrowing margins ; basal abdominal carinae not apparent. Six visible sternites in a median length ratio of 1.5/3.5/3/2/1.2/1, the venter slightly concave longitudinally.

Prosternum not medianly longitudinally carinate. Metasternum provided with a deep median longitudinal sulcus, very tumid on either side, with a weakly formed longitudinal carina on the distal part of the median sulcus. Distal margin of metasternum bearing a U-shaped notch. Metacoxae distinctly separated by trochantal width. Mesocoxae narrowly separated by meso- and metasternal processes. Leg articulation macrosceline, but with unclubbed trochanters ; femora clavate, those of prothoracic legs flattened on ventral face with the posterior margin medianly expanded in a long, blunted, triangular tooth ; pro-tibiae with ventral face flattened and posteriorly expanded ; mesotibiae very arcuate. Tarsi (Fig. 2) three-segmented, first two segments sub-equal, elongate triangular and beneath provided with long, bristling setae ; third segment longer than first two united and bearing a single, large tarsal claw.

Described on one specimen, the type, deposited in the author's collection. Collected by **Dr. Bellinger**, in whose honor this species is named. It was beaten from bushes along Morce's Gap Trail, St. Andrew's Parish, between 1500 and 5000 feet elevation on May 17, 1954.

This large, attractively bicolored species is probably a male in view of the modified antennae, concave venter, sulcate metasternum and modified prothoracic legs. There are but two other species known in the

genus : the genotype, *celatus* Sharp (1887, p. 22) from Zapote, Guatemala, based on a single example, presumed by Sharp to be a male, with dilated middle femora ; *spinipes* Schaeffer (1906, p. 263) from Texas, also based on one male with modified pro- and mesothoracic legs.

Caccoplectus bellingeri is easily separated from the other two species on numerous characters. The antennae in *celatus* have segments III to X subequal in size and shape ; in *spinipes* segment III is triangularly dilated beneath, IV feebly dilated, V to X elongate ; in *bellingeri* III to V are concave beneath, VI to IX are flattened beneath, III transverse, IV irregularly subquadrate, V irregularly slightly transverse, VI to X elongate. *C. spinipes* appears to be less related, on anatomy, than *celatus* and *bellingeri*, since it has the pronotum very sparsely punctate and the leg armature is much more complicated, among other features.

EUPLECTINI

Rhinoscepsis insularis new species

Type. Head 0.30 mm. long x 0.30 mm. wide ; pronotum 0.27 x 0.33 ; elytra 0.27 x 0.42 ; abdomen 0.51 x 0.50 ; total length 1.35 mm.

Red-brown with antennal club and maxillary palpi yellow-brown, moderately shining; pubescence appressed and inconspicuous except the ventromesial margins of antennae and lateral margins of head and pronotum which are obviously pubescent ; head distal of sinuous cephalic sulci sparingly but coarsely granulate, pronotum sparingly and elytra more densely subgranulate-punctate ; abdomen more minutely and densely subgranulate-punctulate.

General anatomy typical of subgenus *Rhinoscepsis* (Park, 1942, 1945a, b) and needs no repetition here.

Eyes vestigial, of six facets (smallest facet number known in the genus). Antennae eleven-segmented, segment I elongate subcylindrical and almost twice as long as wide dorsally and more than twice as long as wide ventrally ; II elongate oval, one-half as long as first segment and twice as long as wide ; III elongate triangular ; IV to VIII submoniliform, V distinctly larger than IV to VI, VII and VIII subequal to V ; club of last three segments, at angle to rest of the antenna, IX subspherical, X wider and transversely oval, XI largest and pyriform.

Pronotum and elytra typical of subgenus. Abdomen with five visible tergites in a median length of ratio of 2.0/2.0/2.3/1.8/1.0 and basal abdominal carinae not apparent ; the fifth tergite is conspicuously, rather suddenly produced at center of distal margin in an acute angle. Seven visible sternites in median length ratio of 1.0/1.4/1.2/1.0/0.6/1.4/1.4; sixth sternite broadly and shallowly concave in median third of width;

seventh sternite transversely triangular with rounded angles.

Described on two females, the type and paratype in collection of the author, collected by Dr. Bellinger on May 17, 1954 by Berlese funnel extraction of moss and rich humus on a ridge west of Morce's Gap, St. Andrew Parish at 5,500 feet elevation.

In a recent key to the genus (Park, 1952, p. 120) *insularis* falls near the female of *dybasi* Park (1942, p. 88) from Veracruz and Chiapas, Mexico. In general anatomy it is nearest *dybasi* Park and *bonita* Becker and Sanderson (1953, p. 412). From these two species *insularis* differs in numerous details of antennal structure and tergite and sternite proportions. It is quickly separated on the eye facet number, *bonita* is illustrated with 15 facets, and *dybasi* has 8 facets whereas *insularis* has 6 facets. The combination of 6 ocular facets, subcylindrical first antennomere, the acute median tubercle at center of distal margin of last visible tergite, and the last two sternites visible of equal length, with the last not longitudinally divided but rounded transverse-triangular in shape, will separate *insularis* from its known congeners.

It is noteworthy that the paratype of *insularis* is subteneral, its integuments being translucent, thin, straw yellow in color. This suggests that May is a pupation period for the habitat in which it was collected.

This is the first record of *Rhinoscepsis* from the West Indies.

***Thesium antennalis* new species**

Type Male. Head 0.167 mm. long x 0.227 mm. wide ; pronotum 0.187 x 0.227; elytra 0.335 x 0.335; abdomen 0.420 x 0.335; total length 1.1 mm.

Chocolate brown, shining, with yellow maxillary palpi ; pubescence moderately long, flavous, and conspicuous against the dark body color ; integuments finely subpunctulate.

Head with gradually rounded tempora that are longer than eyes ; eyes more prominent ventrally where they are as long as tempora; a pair of vertexal foveae on a line behind apical margins of eyes, these foveae perforate and filled with spongy pubescence, and mutually much more distant than either from the adjacent eye ; vertex distal of eyes glabrous and depressed, this depression bearing a fine inverted-Y sulcus, a posterior arm of which extends to each vertexal fovea, and the median arm extends to frontal margin between antennal tubercles; labrum more than three times as wide as long, with a conspicuous, bulbous transversely ovate patch of pubescence at each lateral area between labrum and clypeus ; clypeus medianly erected into a vertically cuneiform ridge that reaches the interantennal frontal margin ; front

with a pair of arcuate, spatulate setae that arise near interantennal line and project ventrally over the subvertical face ; ventral surface of head with a median, longitudinal sulcoid impression from median gular fovea to base of mentum. Maxillary palpi as for genus.

Antennae widely separated from each other, eleven-segmented, 0.38 mm. long, i.e., slightly longer than head and pronotum united ; segment I triangular in cross-section, the mesial and lateral faces strongly flattened to form a fine dorsal edge, this edge elevated in a laminoid wing ; II smaller, elongate oval ; III rounded obconical ; IV and V slightly wider than third, moniliform ; VI and VII slightly wider, transverse moniliform ; VIII and IX slightly wider, transverse trapezoidal ; X transverse trapezoidal, much wider than long, and much larger than ninth segment ; XI about as wide as tenth, about three times as long as wide, the last third abruptly narrowed in a weak conoidal part.

Pronotum with apical margin much narrower than basal margin ; lateral margins rounded in distal two-thirds and straight convergent in basal third, weakly crenulate in basal half with a stronger blunt tooth each side near lateral fovea ; disc bearing a deep elongate, nude fovea for median half ; a perforate, pubescent lateral fovea each side of basal third, these foveae united by a twice-interrupted transverse sulcus, the sulcus very broad and deep in median third between the interruptions ; at base each side a nude fovea.

Elytra each with three perforate pubescent antebasal foveae, an entire sutural stria, a discal stria from most lateral antebasal fovea to center of elytral length ; flank with an entire sulcus, parallel to margin, that reaches a deep, pubescent subhumeral fovea ; lateral wall of flank sulcus raised as a carina that extends basally around the subhumeral fovea where it passes mesially over humeral area in an acutely angulated ridge. Metathoracic wings present.

Abdomen with five visible tergites in a median length ratio of 1.5/1.4/1.3/1.3/0.8 with first four tergites laterally margined, the margins broad and prominent on the first three ; first tergite with a pair of short, inconspicuous basal abdominal carinae that are separated by 36 per cent of total segmental width. Seven visible sternites in a median length ratio of 1.0/1.2/1.0/0.8/0.4/0.6/0.8 ; fifth sternite with distal margin medianly thickened ; sixth sternite flattened in median third of width for full segmental length ; last sternite in the form of an acutely transverse oval plate.

Prosternum longitudinally bisected by a strong carina and mesocoxae separated by meso- and metasternal processes, typical of the genus. Metasternum longitudinally sulcoid ; metacoxae not contiguous, but

slightly and distinctly separated. Legs simple ; tarsi as for genus.

Described on one male, the type, in the author's collection, collected by Dr. Bellinger on May 17, 1954 by Berlese funnel extraction of moss and rich humus on a ridge west of Morce's Gap, St. Andrew Parish at 5,500 feet elevation.

In a recent key to the genus (Park, 1952, p. 115) *antennalis* will key out near *nocturnalis* Park (1952, p. 117) known from log mold at 9,000 feet elevation southwest of Mexico City, Mexico. These two species are quickly discriminated by the pronotum. In *nocturnalis* the lateral pronotal margins are heavily crenulate from near apex to near base, the crenulations obvious and acute ; in *antennalis* the lateral pronotal walls are crenulate in posterior half, and the crenulation is so fine, except for the single blunted tooth near the lateral fovea, that the margins appear entire except at high magnification.

Thesium frontalis new species

Type Male. Body proportions and general anatomy as described for *Thesium antennalis*, head wider than long, pronotum wider than long, head and pronotum subequal in width ; a little lighter brown in color ; a little smaller, being 0.94 mm. in length.

The chief structural differences follow. Eyes relatively larger and more prominent, being distinctly longer than the tempora both above and below. Vertexal foveae still nearer an adjacent eye than to each other, but relatively closer together. Labrum-clypeus not bearing the conspicuous pubescent patches. Face wholly different ; this area bears a relatively large, circular, glabrous depression in the center of which is a small penicillate process that projects anteriorly. The first antennomere is wholly different ; dorsal face flattened and subgranulate. Antennal segments III and IV minute, subequal, moniliform ; V, VI, VII larger than IV, transverse moniliform ; VIII about as large as VII, transverse trapezoidal ; IX larger than VIII, transverse trapezoidal ;

X obtrapezoidal, with convergent sides, transverse but relatively less so ; XI slightly wider than X, slightly more than twice as long as wide. Lateral pronotal margins with crenulation more obvious, but still much less coarse than in *Thesium nocturnalis* Park, from Mexico. Seventh sternite relatively smaller and transversely rounded oval, instead of transversely acute oval.

Female. As described for the male with the following exceptions: (1) Face wholly different, bisected by a vertical lamina ; (2) five visible tergites in median length ratio of 1.5/1.7/1.7/1.5/0.8 ; (3) six visible sternites in median length ratio of 0.5/1.4/1.5/1.5/1.0/1.0 ; (4) Sixth

sternite (most distal) three times as wide as long, with the long distal margin broadly rounded ; (5) venter longitudinally convex.

Described on a male, the type, and a female paratype, in the collection of the author. Collected by Dr. Bellinger by Berlese funnel extraction of moss in damp stream beds, Hardwar Gap-Silver Hill Gap Road, Portland Parish at 4,000 feet elevation on June 3, 1954.

Thesium antennalis and *frontalis* would appear to be closely allied, and to belong to the same species group, i.e., species having two vertexal foveae, tenth antennal segment transverse, with the antennal club composed of the last two segments, and with the head and pronotum subequal in width. It is assumed that the original stock was most closely allied with Mexican-Central American *Thesium*, and through isolation has developed at least two distinct Jamaican species. These latter are easily separable in the male sex by qualitative differences in the face and first antennal segment. So far as known, both are more closely allied to *nocturnalis* of Mexico than to other species in the genus.

This is the first record of *Thesium* in the West Indies.

Actium visendum new species

Type Male. Head 0.15 mm. long x 0.20 mm. wide ; pronotum 0.18 x 0.21 ; elytra 0.28 x 0.30 ; abdomen 0.29 x 0.29 ; total length 0.9 mm.

Uniform yellowish brown, moderately shining, integument finely punctulate, pubescence flavous, moderately abundant but inconspicuous except on abdomen.

Head rounded triangular, eyes as long as the abruptly rounded tempora and subcircular in lateral view ; occiput medianly indented, the indentation extending over vertex nearly to the level of the vertexal foveae ; two nude vertexal foveae between the eyes, united by a broadly rounded interfoveal sulcus ; front rather suddenly and conspicuously elevated as a triangular interantennal prominence, this raised area finely but densely punctulate ; the median portion of the interfoveal sulcus lies at the base of the interantennal prominence ; the posterior wall of the interantennal prominence not straight but slightly arcuate and at each side is minutely, triangularly incised ; face subvertical, minutely subgranulate ; mandibles large ; ventral surface of head bearing capitate setae, especially obvious around oral margins of genae.

Antennae eleven-segmented, widely separated at base, almost as long as head and pronotum united, in a ratio of 4/5 ; segment I large, elongate but largely hidden under sides of front ; II about as wide as first, shorter and suboval ; III to VIII minute, subequal in size, third

obtriangular, fourth to eighth transverse moniliform ; IX only slightly larger, transverse moniliform ; X obvious larger than ninth, transverse trapezoidal ; XI forming the club, as long as preceding five segments united, two times as wide as tenth segment, about as long as wide, with truncate base and apex but appearing apically acute as a consequence of the pubescence, antennal cones apparent.

Pronotum with convex, unmodified disc ; a biarcuate transverse antebasal sulcus, overhung by pubescence laterally ; a lateral fovea at each end of sulcus that is visible from above, within the lateral pronotal margins but obscured by the pubescence noted.

Elytral humeri not obviously dentate but subdentate as a consequence of the subhumeral relief caused by the flank carina ; each elytron with two antebasal foveae, entire sutural stria ; lateral antebasal fovea at base of a weak, broad, tapering impression that extends to basal fourth of elytral length ; elytral flank with a longitudinal carina that extends from apex to near base, parallel to margin, and at base angulates sharply mesiad over humeral area to give a subdentate appearance from above ; a strioid impression mesiad of flank carina, and a nude subhumeral fovea in the angulation of the carina.

Abdomen with five visible tergites in a median length ratio of 1.2/1.2/1.2/1.2/0.8 with first four tergites laterally margined ; first tergite with a pair of flat, cuneiform basal abdominal carinae that are about one-fourth as long as segment and separated by about 20 per cent of segmental width. Seven sternites in a median length ratio of 0.6/1.0/0.7/0.6/0.5/0.7/0.6 with the last in the form of a rounded aedeageal plate ; sixth sternite medianly flattened ; fifth sternite thickened medianly near apex ; venter longitudinally concave in profile.

Metacoxae slightly separated, subcontiguous ; metasternum broadly and rather deeply concave ; mesotrochanters each with a tooth at center of ventral face ; tarsi as for genus.

Female as for male with following exceptions: (1) eyes shorter than tempora, not prominent from above, but with more than 30 facets ; (2) posterior wall of interantennal prominence with a pair of just discernible, blackened cusps near middle (cusps apparent only in strong oblique illumination at a magnification of 70 or more diameters) ; (3) tergites in length ratio 1.0/1.3/1.0/1.0/1.0 and sternites 0.8/1.0/1.0/0.8/0.6/1.0 ; (4) venter longitudinally convex in profile; (5) metasternum much less concave; (6) mesotrochanters unarmed.

Described on four specimens, in collection of author, type male, paratype male and two paratype females. Collected by Dr. Bellinger by Berlese funnel extraction of moss in damp stream beds in Hardwar

Gap-Silver Hill Gap Road, Portland Parish at 4,000 feet elevation on June 3, 1954.

The metathoracic wings, measured from a paratype, are well formed, membranous, with long alar setae on the ventral margin, and are longer than the body, being 0.94 mm.

One of the females is post-teneral, with straw yellow, thin and translucent integuments. This suggests that late May or early June is a pupation period for the species in this locality.

The male paratype bears on its lower surface three relatively large mites.*

Most closely allied to *caviceps* Raffray, 1898, p. 234 from Mexico by virtue of the bifoveate elytra and rugulose front, but *caviceps* has the vertex medianly excavated as a transversely oval fossa.

This is the first record of *Actium* from the West Indies.

***Latomelba* new genus**

Genotype : *Latomelba quadrisicca* new species.

Euplectini that have the following combination of diagnostic features: (1) Head neither dilated laterally, nor produced apically, nor narrowed posteriorly as a small cephalic peduncle ; (2) eyes visible from above ; (3) antennae eleven-segmented, not geniculate, with the last three segments forming an antennal club ; (4) ventral surface of head with capitulate setae; (5) pronotum with convex, unmodified disc, and lateral foveae invisible from above; (6) elytral humeri rounded, not dentate, each elytron bifoveate at base, elytral flank with a longitudinal carina and sulcoid impression that extends to a subhumeral fovea; (7) prosternum not bisected by a longitudinal carina; (8) mesocoxae contiguous in confluent coxal cavities; (9) metacoxae slightly separated and subcontiguous; (10) male (only sex known) with five visible tergites, the tergites unmodified and simple and six visible sternites, with a minute seventh sternite apparently present ; (11) tarsi three-segmented, first segment short, last two elongate, third bearing a single tarsal claw.

*These mites have been identified by Dr. Joseph H. Camin as hypopi or deutonymphs of Acaridiae of the suborder Sarcoptiformes. They are non-feeding, phoretic, and the adults are free-living, usually feeding on decaying organic matter.

Latomelba quadrisicca new species

Type Male. Red brown, shining, head and pronotum sparsely punctulate, elytra and abdomen more densely punctulate, general body pubescence short, appressed, sparse on head and pronotum, more abundant on elytra and abdomen. Total length 0.95 mm., greatest width 0.37 mm. General body proportions as illustrated (Fig. 3).

Head wider than pronotum, eyes of about 26 coarse facets, eyes subcircular in lateral view ; vertexal foveae smaller than ocular facets, united by a broadly rounded interfoveal sulcus, foveae nude ; face simply declivous ; labrum semicircular ; ventral surface of head transversely tumid, bearing capitulate setae.

Maxillary palpi yellow, four-segmented, first segment minute ; second elongate pedunculate ; third short, rounded triangular, as wide as apex of second ; fourth largest, longer than second and wider than third, obliquely truncate at base, lengthily obpyriform, with apex bearing a minute palpal cone.

Antennae (Fig. 4) eleven-segmented, distant from each other ; first segment large but almost hidden under front, II large but smaller than first ; III to VIII subequal in width, third obconical, fourth to eighth elongate moniliform but only slightly so ; club of last three segments, this club relatively poorly developed since the distal segment is unusually large and could be said to compose the club (similar in this connection to *Tomoplectus*), ninth transverse trapezoidal, tenth larger and transverse trapezoidal, eleventh truncate at base, elongate oval otherwise and subacute at apex.

Pronotum with simple, convex disc ; biarcuate sulcus before the base, with a nude lateral fovea each side, these foveae invisible from above. A special integumentary feature : a pair of stiff, translucent, truncate setoid processes that arch over antebasal sulcus each side (these do not appear to be setae, such as distinguish similar pronotal areas in *Dalmosella*, but are more rod-like, Fig. 3).

Elytra with rounded humeri, each elytron with bifoveate base, the foveae nude and in a basal oval impression ; mesial impression at base of entire sutural stria that is relatively distant from sutural margin ; lateral impression extended as a shallow, vague impression to center of disc ; flank with a longitudinal carina, and this is paralleled by a longitudinal sulcoid line that extends to a small, nude subhumeral fovea.

Abdomen with five visible tergites, these tergites simple and unmodified ; first three with lateral margins ; first bearing a pair of short, triangular basal abdominal carinae that are separated by 32 per cent

of total segmental width. Venter longitudinally slightly concave. Six visible tergites, of which the first is short, second longest, third and fourth progressively shorter, fifth medianly very short, sixth longer. There appears to be a seventh sternite, a minute transverse oval plate but this can not be vouched for because of a special integumentary feature : around the anal-genital area there are several rows of short, suberect, wide, stiff, squamoid setae ; these latter cover the area of the apparent seventh sternite, *i.e.* they ring the median distal margins of the fifth tergite and last sternite. (The presence or absence of the seventh sternite could be verified quickly by removing these squamoids, but this pubescence is novel in the author's experience and would impair the unique example ; such verification can await the accumulation of additional material.)

Third sternite modified (Fig. 5). In each lateral third there is a tumulus culminating in a facet-like nipple ; laterad of this tumulus is a dense circlet of erect setae, the ends of which are incurved to form a structure like a miniature bird-cage.

Fourth sternite modified (Fig. 5). At each lateroventral area is a pair of exceptionally long, translucent, stiff, flattened processes that are spatulate at tip. They are novel in the author's experience.

Prosternum transversely tumid, not bisected by a longitudinal carina ; metasternum tumid, not sulcate ; mesocoxae contiguous in confluent cavities ; metacoxae distinctly but slightly separated by a distance equal to about one-fourth of the width of the mesial articular surface of a metacoxa. Metacoxae with their mesial articular surfaces more broad than usual in Euplectini. Legs simple except for mesotrochanters, each of which bears at center of ventral face a specially aciculate triangular spine. Tarsi as described for genus.

Described on one male, the type in author's collection, collected by Dr. Bellinger on May 17, 1954 by Berlese funnel extraction of moss and rich humus on a ridge west of Morce's Gap, St. Andrew Parish at 5,500 feet elevation.

Latomelba is difficult to place because of its annectent features. The metacoxal-trochantal area is in the direction of Brachyglutini, but the ventral surface of the head and at least six visible sternites are of the Euplectini. Within Euplectini the antennal club is three-segmented, placing it in the subtribe Euplectina but the distal antennal segment is so large relatively that it might be keyed to the subtribe Trimiina. The general habitus is melboid except for the head, which is wider than pronotum, and the elytral flank, which bears a subhumeral fovea. In general, *Latomelba* appears to be most closely allied to

Tomoplectus, with but two species known, both of Mexico (Park, 1952) in the subtribe Euplectina ; and shows many affinities with the subtribe Trimiina, especially *Allomelba* of the Bahamas (Park, 1954) and with *Lemelba* of tropical Florida (Park, 1953).

Melba jamaicensis new species

Type Female. Head 0.13 mm. long x 0.18 mm. wide ; pronotum 0.19 x 0.20 ; elytra 0.29 x 0.30 ; abdomen 0.33 x 0.28 ; total length 0.94 mm.

Yellowish brown, moderately shining, lightly punctulate, pubescence flavous, moderately abundant and conspicuous.

Head short, subpentagonal with prominent eyes that are slightly longer than tempora ; occiput deeply indented medianly, the indentation extending over vertex to a point between vertexal foveae ; a pair of relatively large and deep vertexal foveae between eyes, united by a broadly rounded interfoveal sulcus ; face subglabrous, simple and lengthily declivous ; mandibles strong ; maxillary palpi as for the genus ; ventral surface of head with 16 setae, of which four are strongly capitate in an anterior row along oral margin, the remaining 12 are minutely capitulate in three groups : a basal row of two, a median row of four, and three each on the cardo-genal lateral angles.

Antennae eleven-segmented, only moderately separated at base ; I and II large as usual ; III minute and obconical ; IV to VIII minute, as wide as third, transversely moniliform ; IX slightly larger ; X transversely trapezoidal, distinctly larger than ninth ; XI forming the club, large, rounded at base and apex subacute in one view and truncate in another view, distally bearing a pubescent cleft, antennal cones obvious.

Pronotum with simple, convex disc ; a modestly biarcuate transverse antebasal sulcus, at each end of which is a weak, foveoid impression that is invisible from a dorsal view.

Elytra with rounded humeri ; each elytron bifoveate at base ; sutural stria entire ; small, deep, oval discal impression for basal fifth of elytral length ; flank with a longitudinal sulcoid impression parallel with elytral margin from apex to near base, the lateral wall of this impression as a fine carinoid line ; no subhumeral fovea.

Abdomen with five tergites in median length ratio of 1.6/1.3/1.1/- 1.0/1.0 of which the first three are margined laterally ; first tergite with a pair of basal abdominal carinae, these carinae are prominent, triangular at base, narrowing rapidly to an elongate carina ; these carinae almost half as long as segment and separated by 35 per cent of total segmental width. Six sternites in median length ratio of 1.0/1.7/1.3/1.0/0.5/0.8

with the venter slightly convex longitudinally in lateral view. Metasternum medianly slightly depressed ; legs simple ; tarsi as for genus.

Described on four females, in author's collection, collected by Dr. Bellinger by Berlese funnel extraction from moss in damp stream beds in Hardwar Gap-Silver Hill Gap Road, Portland Parish at 4,000 feet elevation on June 3, 1954.

This species is in the subgenus *Perimelba* and represents the first record of the subgenus in the West Indies. It is allied most closely to *minuta* (Sharp, 1887, p. 38) of Guatemala and Mexico. It is separated easily from *minuta*, in which the eyes and tempora are subequal in length, the head and pronotum subequal in width, and the basal abdominal carinae are short and inconspicuous, being about one-fifth as long as the first tergite.

KEY TO THE GENERA OF NEOTROPICAL TRIMIINA

Since the 1952 revision of Euplectini quite a few species of Antillean Trimiina have been examined and four of these were previously unknown to the author. Representatives of these species were found in the Croissandeau Collection of Pselaphidae, identified by Achille Raffray, and at present on loan from Cornell University. They are as follows:

Trimiosis eggersi Reitter, 1883, p. 38 from St. Thomas, Virgin Islands and Puerto Rico.

Trimiosis inconspicua Reitter, 1883, p. 41. St. Thomas.

Trimiosis parmata Reitter, 1883, p. 40 St. Thomas and Puerto Rico.

Trimiosis ventricosa Reitter, 1883, p. 39 St. Thomas and Puerto Rico.

All four have each elytral flank with a subhumeral fovea. This anatomical character is relatively stable and has been considered generally as of generic weight in pselaphid taxonomy. Raffray (1903) placed these four species in the genus *Melba* Casey, 1897. It is obvious that these four species are not *Trimiosis* Reitter, 1882 as represented by the genotype, *claviceps* Reitter, 1882, p. 150 from Colombia (cf. Park, 1952, p. 129-130) in that they do not have the exposed lateral pronotal foveae of *Trimiosis*. It is also obvious that these four species are not *Melba* Casey, 1897 with nonfoveate elytral flanks (*sensu* Casey, 1897, Raffray 1903, 1908, 1911, Park 1942, 1952). Therefore they must be placed in another genus.

Park (1942, p. 117) divided *Melba* into six subgenera. One of these, *Quadrelba* contained *ventricosa* (Reitter) and *parmata* (Reitter), following the generic assignment of Raffray. It is proposed here to place these two species, and *inconspicua* (Reitter), in *Quadrelba*; to raise *Quadrelba* to full generic status, with *parmata* (Reitter) as the genotype ; to diagnose *Quadrelba* as those species of the subtribe Trimiina that have the characters as set forth for the subgenus (Park, 1942, p. 120) and in addition bearing a subhumeral fovea on each elytral flank.

There remains *Trimiopsis eggersi* Reitter. This species can not be placed in *Trimiopsis* or *Melba* for the reasons just cited. It can not be placed in *Quadrelba* since in this genus the head is quadrate in outline and the males have the head distally dilated. It is assigned to the genus *Allomelba* (Park, 1954a), in which the head is narrowed distally of the eyes, dorsally invisible pronotal foveae, and foveate elytral subhumerali.

In addition to *Quadrelba*, five genera have been described in the subtribe Trimiina since 1952. These are *Lemelba* (Park, 1953) from neotropical Florida; *Allomelba*, *Dalmomelba*, and *Trimiovillus* (Park, 1954a) from the Bahamas ; *Malleocephs* (Park, 1954b) from the Dominican Republic.

In 1952 there were sixteen trimiine neotropical genera. The present number of genera in this subtribe is twenty-two. These genera are integrated in the following key which supersedes previous keys to this subtribe.

- | | | | |
|-------|--|--------------------------------------|---|
| 1 | Body widest through the head, the anterolateral cephalic angles prominently produced as acute triangular lobes | <i>Malleocephs</i> (Park, 1954b). | |
| | Head not as described | | 2 |
| 2 (1) | Elytron quadrifoveate | <i>Melbamima</i> (Raffray, 1909). | |
| | Elytron either bifoveate or trifoveate | | 3 |
| 3 (2) | Pronotal disc bisected by a median, longitudinal carinoid ridge | <i>Neodalmus</i> (Raffray, 1891). | |
| | Pronotal disc not as described | | 4 |
| 4 (3) | Metacoxae relatively distant, separated by the width of their conical mesial articular surfaces or more | | 5 |
| | Metacoxae contiguous or slightly separated | | 8 |
| 5 (4) | Elytron with no sutural stria | <i>Dalmoplectus</i> (Raffray, 1890). | |
| | Elytron with a sutural stria | | 6 |

- 6 (5) Elytral flank without a subhumeral fovea; ventral surface of head without capitulate setae
Dalmomelba (Park, 1954a).
Elytral flank with a subhumeral fovea; ventral surface of head with capitulate setae 7
- 7 (6) Pronotal base bisected from basal bead to transverse antebasal sulcus by a strong carinoid ridge ; tergites with conspicuous guard setae *Lemelba* (Park, 1953).
Pronotal base not so bisected; guard setae absent from tergites *Dalmosanus* (Park, 1952).
- 8 (4) Elytral humeri dentate or subdentate 9
Elytral humeri rounded 10
- 9 (8) Elytral base simply bifoveate or trifoveate
Actium (Casey, 1886). Elytral base bearing a prominent, transverse carina parallel to basal margin and proximal to foveae
Actionoma (Raffray, 1898).
- 10 (9) Pronotum with lateral foveae present, mesiad of lateral pronotal margins, and visible from a dorsal view partially or wholly (discounting pubescence) 14
Pronotum with lateral foveae absent, vestigial or well formed, but if the latter, always wholly invisible from a dorsal view and located on the flanks of pronotum 11
- 11 (10) Elytral flank with a subhumeral fovea 12
Elytral flank with subhumeral fovea absent 13
- 12 (11) Head quadrate in outline; males with head distally dilated *Quadrelba* (Park, 1942).
Head narrowing distal to eyes *Allomelba* (Park, 1954a).
- 13 (11) Elytral flank bearing a fine longitudinal sulcus; males with seventh (last) sternite in the form of a minute, transverse fusiform plate less than half as long as sixth sternite *Allotrimium* (Park, 1943).
Elytral flank without sulcus, but with a fine carina that is oblique or longitudinal; males with seventh (last) sternite in the form of a large, ovoidal plate
Melba (Casey, 1897).

- 14 (10) Tenth antennal segment bilaterally symmetrical and biconvex to trapezoidal 15
 Tenth antennal segment obviously asymmetrically triangular 20
- 15 (14) Vertex with a pair of deep, longitudinal, subparallel sulci that do not unite distally
Trimiodina (Raffray, 1898).
 Vertex with interfoveal sulcus present or absent, but if the former, it is entire and broadly rounded, even if vestigial 16
- 16 (15) Vertex with two pairs of foveae : a pair of widely separated vertexal foveae on a line through posterior half of eyes and a distal pair in which a fovea is placed slightly behind and mesiad of each antennal prominence *Ramelbida* (Park, 1942).
 Vertex with one pair of foveae, between the eyes 17
- 17 (16) Elytron with a subhumeral fovea *Triangusella* (Park, 1952). Elytron with subhumeral fovea absent 18
- 18 (17) Vertex conspicuously arched medianly with a large sub-circular, microgranulate depression on each side and with normal eyes (male) ; or vertex strongly convex and eyes vestigial (female) *Trimioarcus* (Park, 1952).
 Vertex not as described, simply convex to flattened and eyes prominent in both sexes 19
- 19 (18) Pronotal disc simply, evenly convex and the head slightly wider than pronotum *Trimiosella* (Raffray, 1898).
 Pronotal disc longitudinally divided by a broad, glabrous shallow impression ; head narrower than pronotum *Trimiovillus* (Park, 1954a).
- 20 (14) Pronotum with a simple, transverse to biarcuate ante-basal sulcus connecting the lateral foveae 21
 Pronotum with a Y-shaped sulcus, the arms and stem of which are equal in length, each arm connected to a lateral fovea and the stem reaching the basal bead *Cupila* (Casey, 1897).

- 21 (20) Head small, triangular, distinctly narrower than pronotum
 turn *Pseudotrimium* (Raffray, 1898).
 Head large, distinctly wider than pronotum
Trimioipsis (Reitter, 1882).

There are two genera in the subtribe Euplectina that may be placed in the Trimina inadvertently. These are *Tomoplectus* (Raffray, 1898) with two species, both from Mexico, and *Latomelba* described in the present paper. In both of these genera the distal antennal segment is relatively large for the Euplectina but the three-segmented antennal club places them in this latter tribe rather than in the Trimina.

ORIGIN OF THE PSELAPHID FAUNA OF JAMAICA

Although there are but seven species known from Jamaica it would appear that their faunal affinities are with the Mexico-Guatemala area rather than with South America or the Lesser Antilles. Such a postulate may be strengthened or weakened by additional material from Jamaica and by a better understanding of the relatively poorly known pselaphid faunas of Cuba and Puerto Rico.

Table I. Jamaican Faunal Affinities

Genus	Western Hemisphere excl. West Indies	West Indies	Closest Ally of Jamaican fauna
<i>Caccoplectus</i> (3 spp.)	1 Texas 1 Guatemala	1 Jamaica	1 Guatemala
<i>Rhinoscepsis</i> (12 spp.)	1 Florida 3 Mexico 1 Honduras 5 Brazil-Guianas 1 Argentina	1 Jamaica	1 Mexico 1 Honduras
<i>Thesium</i> (15 spp.)	2 Eastern U. S. 8 Mexico-Guatemala 3 Brazil-Panama	2 Jamaica	1 Mexico
<i>Actium</i> (20 spp.)	14 United States (esp. California) 2 Mexico 1 Honduras 2 Chile	1 Jamaica	1 Mexico
<i>Latomelba</i> (1 sp.)		1 Jamaica	
<i>Melba</i> (32 spp.)	10 Eastern U. S. 1 Arizona 7 Mexico-Guatemala 3 Brazil-Guianas 1 Argentina	1 Jamaica 1 Bahamas 8 Lesser Antilles	1 Guatemala

From Table I it will be seen that of the six genera so far known from Jamaica five are unknown from the rest of the West Indies. This probably is a consequence of our lack of information since the Bahamas, Cuba, Puerto Rico and the Dominican Republic are not well known. Despite our lack of data, the closest allies, based on external anatomy, would seem to be those found in the general area of neotropical Mexico-Honduras-Guatemala. In the case of the genus *Melba*, the only genus hitherto known from the West Indies as well as Jamaica, the Jamaican species belongs to the subgenus *Perimelba*, unknown from the rest of the West Indies. *Perimelba* at present holds eight species distributed as follows : Arizona 1, Mexico-Guatemala 5, Argentina 1, and Jamaica 1. The Bahaman species is in the subgenus *Melba* and the eight species from the Lesser Antilles are distributed as follows : subgenus *Rameloidea* 1, *Frontelba* 2, and *Melba* 4, with one species unknown to the author and unplaced subgenerically.

Darlington (1938) reviewed several faunas and found them to be moderately homogeneous in the Greater Antilles, and it is his view that they developed from stocks that crossed primarily from Central America over a water gap. The view given in this report, and arrived at independently, is not inconsistent with this suggestion, namely that the Jamaican pselaphid fauna probably arose from northern, neotropical Central America.

SUMMARY

This is the first record of Pselaphidae from Jamaica.

One new genus and seven new species are described as follows: Tribe Faronini, *Caccoplectus bellingeri* new species ; Tribe Euplectini, *Rhinoscepsis insularis* new species, *Thesium antennalis* new species, *Thesium frontalis* new species, *Actium visendum* new species, *Latomelba quadrisicca* new genus and new species, genotype, and *Melba* (*Perimelba*) *jamaicaensis* new species.

On the basis of data available this Jamaican fauna appears to be most closely allied to existing stocks in the Mexico-Guatemala-Honduras area.

The subtribe Trimiina (Euplectini) is reviewed and a key to neotropical genera given. *Quadrelba*, formerly a subgenus of *Melba*, is raised to generic rank, with *Quadrelba parmata* (Reitter) as its genotype.

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